

**Notice of Allowability**

Application No.

10/081,533

Examiner

Susan W Berman

Applicant(s)

UDAGAWA ET AL.

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Election filed 12-05-03.
2. ☒ The allowed claim(s) is/are 4,5 and 9-22.
3. ☒ The drawings filed on 25 February 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

Susan W Berman  
Primary Examiner  
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*Election/Restrictions*

Applicant's election without traverse of Group II in Paper No. submitted 12-05-2003 is acknowledged.

**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with William Fisher on February 23, 2004.

The application has been amended as follows:

Cancel claims 1-3.

In claim 4, line 5,, delete "room" and insert therefor -- a -- and after "temperature" insert between -- 30 and 50 °C --.

**REASONS FOR ALLOWANCE**

The following is an examiner's statement of reasons for allowance: The instantly claimed method for producing a radiation-modified poly(tetrafluoroethylene), "PTFE", resin feed from unsintered poly(tetrafluoroethylene) is distinguished from the prior art known to the examiner by treatment with ionizing radiation in an absorbed dose of no more than 1,000Gy in air and within the recited temperature range . The cited prior art also fails to mention lowering the melting point without changing the quantities of heat of fusion and heat of crystallization, as set forth in the instant claims.

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The closest prior art is cited below:

JP 2001/329069 (Abstract) appears to disclose irradiating PTFE in a low oxygen atmosphere at heat beyond the melting point. Brown et al (4,036,718) disclose a process of irradiation of unsintered PTFE at a dose from 200 to 20,000 Gy. Causton et al disclose subjecting a PTFE coating on a cutting edge to ionizing radiation in the presence of an oxygen-containing gas at a dose of up to 50 Mrads (1 Mrad is equivalent to 1,000 Gy). Dillon (3,766,031) discloses treating sintered or unsintered PTFE by irradiation at a dose from about 5 Mrads to about 25 Mrads at a temperature that does not rise above 250 °C. Derbyshire (4,220,511) discloses treatment of sintered PTFE with irradiation in the presence of air or oxygen at a dose from 50 to 150 Mrads at a temperature between 150 °F and 600 °F and subsequent heating at temperatures below the melting point of the material to yield fine powders. Knobel et al (5,916,929) disclose a method for repeated irradiating of organic polymers such as PTFE at a dose between 0.1 and 300 Mrads under specific conditions of depth to improve the flow rate and millability. Tabata et al (5,444,103) disclose exposing PTFE to ionizing radiation at a dose of at least 100kGy in the absence of oxygen at a temperature not lower than the crystal melting point of the starting PTFE to improve radiation resistance and rubber characteristics.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan W Berman whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Susan W Berman  
Primary Examiner  
Art Unit 1711

SB  
February 23, 2004